

**WHAT IS CLAIMED IS:**

1. A display sheet comprising:
  - a) an optional substrate for carrying layers of material;
  - b) an imaging layer and comprising a substantial monolayer of isolated domains of liquid-crystal material dispersed in a continuous matrix, said liquid-crystal material having a first reflecting state within the visible light spectrum defining an operating spectrum and a second weakly scattering state in said operating spectrum, wherein said states are capable of being interchanged by an electric field, which states are capable of being maintained as a stable state in an absence of an electric field, wherein said domains of liquid-crystal material comprises a mixture of at least two populations, a first population comprising a first liquid-crystal material having a first  $\lambda_{\max}$  and a second liquid-crystal material having a second  $\lambda_{\max}$  wherein there is a difference between said first and said second  $\lambda_{\max}$  of at least 50 nm;
  - c) first transparent conductors disposed on one side of said imaging layer;
  - d) second conductors disposed on an opposite side of said imaging layer.
2. The display sheet of claim 1 wherein reflected light from said display sheet when said imaging layer is in the first reflecting state has CIE tristimulus values X, Y and Z that are within 20 percent of each other.
3. The display of claim 1 wherein the first liquid-crystal material has a peak reflected wavelength in the range of 561 to 720 nanometers and said second liquid-crystal material has a peak reflected wavelength in the range of 450 to 560 nanometers.

4. The display of claim 1 wherein said first and said second liquid-crystal material each comprises a dopant having a first and a second concentration, respectively, wherein said first and said second concentration differs such that the pitch of said second liquid-crystal material is smaller than the pitch of said first liquid-crystal material.

5. The display of claim 1 wherein said first liquid-crystal material reflects red having  $\lambda_{\max}$  in a range 630 to 720 nm.

6. The display of claim 5 wherein said first liquid-crystal material reflects red and said second liquid-crystal material reflects green, blue, or cyan.

7. The display of claim 5 wherein said first liquid-crystal material is red and said second liquid-crystal material is green.

8. The display of claim 1 wherein said first and said second conductors are patterned to produce an addressable matrix.

9. The display of claim 1 wherein said domains comprise chiral-nematic liquid-crystal material and said continuous matrix comprises gelatin.

10. A display sheet comprising:

- a substrate for carrying layers of material;
- an imaging layer comprising a substantial monolayer of isolated domains of liquid-crystal material dispersed in a continuous matrix, said liquid-crystal material having a first reflecting state within the visible light spectrum defining an operating spectrum and a second weakly scattering state in said operating spectrum, wherein said states are capable of being interchanged by an electric field, which states are capable of being maintained as a stable state in an

absence of an electric field, wherein said domains of liquid-crystal material comprises a mixture of at least two populations, a first population comprising a first liquid-crystal material having a first  $\lambda_{\max}$  and a second liquid-crystal material having a second  $\lambda_{\max}$ , in which a first material reflects red and wherein said second  $\lambda_{\max}$  is separated by 100 to 250 nm from said first  $\lambda_{\max}$ ;

- c) first transparent conductors disposed on one side of said imaging layer;
- d) a light-absorbing layer on an opposite side of said imaging layer; and
- e) second conductors on the other side of said imaging layer from the first transparent conductor.

11. The display sheet of claim 10 wherein said domains are flattened to improve reflectance in the reflecting state of said display.

12. The display sheet of claim 10 wherein said domains have an average diameter of 2 to 30 microns.

13. The display sheet of claim 10 wherein said domains are flattened spheres and have on average a thickness at least 50% less than their length.

14. The display sheet of claim 10 wherein said domains have a thickness to length ratio of 1:2 to 1:6.

15. The display sheet of claim 10 wherein said first transparent conductors are patterned ITO.

16. The display sheet of claim 10 wherein said substrate is a flexible plastic material.

17. The display sheet of claim 10 wherein said imaging layer has a thickness of 2 to 20 microns.

18. A display sheet comprising:

- a) a substrate for carrying layers of material;
- b) an imaging layer comprising a substantial monolayer of isolated domains of liquid-crystal material dispersed in a continuous matrix, said liquid-crystal material having a first reflecting state within the visible light spectrum defining an operating spectrum and a second weakly scattering state in said operating spectrum, wherein said states are capable of being interchanged by an electric field, which states are capable of being maintained as a stable state in the absence of an electric field, wherein said domains of liquid-crystal material comprises a mixture of at least two populations, a first population comprising a first liquid-crystal material having a first  $\lambda_{\max}$  and a second liquid-crystal material having a second  $\lambda_{\max}$ , in which said first liquid-crystal material reflects red and said second liquid-crystal material reflects green or blue and said first  $\lambda_{\max}$  is separated by 100 to 250 nm from said second  $\lambda_{\max}$  and wherein;
- c) first transparent conductors disposed on one side of the imaging layer;
- d) a light-absorbing layer on an opposite side of said imaging layer; and
- e) second conductors also disposed on said opposite side of said imaging layer.

19. The display of claim 18 wherein said first liquid-crystal material is red and said second liquid-crystal material is green.

20. The display sheet of claim 18 wherein said domains have an average diameter of 2 to 30 microns and said domains are flattened spheres and have on average a thickness at least 50% less than their length.